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Titel: POSITIONING DEVICE FOR PARTS WITH LEAD

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## Zusammenfassung

**PURPOSE:** To position a parts with a lead with high accuracy by calculating a reference line in the projection direction of the lead from an image signal obtained by picking up the image of the parts with the lead and calculating the positional relation of the parts from the intersection position of the reference line.

**CONSTITUTION:** A four-directional flat package IC(QFP) 5 supplied from a supply part 4 is picked up by a pickup head 6 and an X-Y-Q table 7 which carries it is moved to the position where its image can be picked up by an ITV camera 9. Then the image of the QFP 5 is picked up and the output signal of the camera 9 is converted 10 into a binary image signal, which is stored in a memory 11. Then an arithmetic part 12 calculates the reference line of each projection direction of a lead of the QFP 5 from the data in the memory 11 and then calculates intersections of reference lines to find the center position and rotational quantity of the QFP 5. Then, the value of a table 7 for placing the QFP 5 at a mount position on a substrate 3 is calculated from the center position and rotational quantity and control signals SX, SY, and S $\theta$  are impressed to the table 7 through a controller 13 to position the QFP 5 at the specific position of the substrate 3; and then the pickup is released and the QFP is mounted on the substrate 3.

